UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
NGUYEN, MINH CHAU

ART UNIT	PAPER NUMBER
2445	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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	Application No.	Applicant(s)
Office Action Summary	10/784,138	SHEDRINSKY, FELIX
	Examiner	Art Unit	
	MINH-CHAU NGUYEN	2445	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 January 2009</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-4,6-12,14 and 16-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-4,6-12,14 and 16-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>20 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1/30/09</u>

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This action is responsive to the RCE amendment of the applicant filed on

1/30/09. Claims 1-4,6-12,14,16-20 are presented for further examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-3, 6-7, 10-11, 17-20 are rejected under 35 U.S.C. 103(a) as being

    unpatentable over Venkatsubra (US 2002/0078135 A1), and further in view of

    Bahl (US 7,003,574 B1) and Hovell et al. (Hovell) (US 7,116,681 B1).

2. Claim 1, Venkatsubra teaches a method of transferring data via a communication

    session between a client application behind a first firewall and a server

    application behind a second firewall, the method being performed by at least one

    device that is not behind either the first firewall or the second firewall, the method

    comprising:

    creating at least one queue (i.e. receive buffer queue 424, send buffer

    queue 426, etc.) associated with the communication session [fig. 1A, 4, 5 step

    520; and paragraph 32-35,51-61];

    storing data passed between the client application and the server

    application in the at least one queue, the data being stored using an identifier

(i.e. a memory address for referencing the data packet) [fig. 1A, 4, 5 step 520; and paragraph 51-61]; and

receiving, from the client application, a command to obtain data in the at least one queue destined for the client application, and receiving, from the server application, a command to obtain data in the at least one queue destined for the server application [fig. 1A, 4; and paragraph 4,32-35,51-61], the command received from the client application being a hypertext transfer protocol (HTTP) command to retrieve data from the at least one device, and the command received from the server application being an HTTP command to retrieve data from the at least one device [paragraph 4,32-35];

Venkatsubra fails to teach assigning an identifier to the communication session; and wherein the client application and the server application run local protocols, and the data is passed between the client application and the server application via an intermediary protocol. However, Bahl and Hovell, in the same field of endeavor having closely related objectivity, Bahl teaches assigning an identifier to the communication session [Col. 9, L. 8-53; and Col. 10, L. 37-65], and Hovell teaches wherein the client application (i.e. host 28) and the server application (i.e. host 30) run local protocols (i.e. IPv6), and the data is passed between the client application and the server application via an intermediary protocol (i.e. IPv4) [figure 1].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Hovell's teachings of wherein

the client application and the server application run local protocols, and the data

is passed between the client application and the server application via an

intermediary protocol, with Bahl's teachings of assigning an identifier to the

communication session, in the teachings of Venkatsubra in method and

apparatus for improving the operation of an application layer proxy, for the

purpose of supporting an advantage for the source/destination host need only

send a standard address request message in its own protocol.

3. Claim 2, Venkatsubra and Bahl and Hovell disclose the invention substantially as

   claimed. Venkatsubra teaches creating a socket interface to at least one of the

   client application and the server application, data from the at least one device

   being transmitted through the socket interface [fig. 1A; and paragraph 7-8].

4. Claim 3, Venkatsubra and Bahl and Hovell disclose the invention substantially as

   claimed. Hovell teaches the client application (i.e. the host 28) and the server

   application (i.e. the host 30) are on networks (i.e. a first network and a second

   network) that run the local protocols (i.e. IPv6) [figure 1; and Col. 3, L. 25-32],

   and wherein conversion between the local protocols and the intermediary

   protocol occurs prior to passing the data through the device (i.e. converting

   between the IPv6 and IPv4 when transmitting all packet) [fig. 1&2; and Col. 6, L.

   8-Col. 7, L. 50].

5. Claim 6, Venkatsubra and Bahl and Hovell disclose the invention substantially as
    claimed. Venkatsubra teaches wherein the identifier is associated with the at
    least one queue (i.e. the memory address is considered as the identifier for
    referencing the data packet within the queues) [fig. 1A, 4; and paragraph 51-61].
    Besides this, Bahl teaches the identifier is the session identifier [Col. 9, L. 8-53;
    and Col. 10, L. 37-65]

6. Claim 7, Venkatsubra and Bahl and Hovell disclose the invention substantially as
    claimed. Bahl teaches wherein the at least device comprises a server performing
    load balancing to select the server to perform the method from among plural
    server [Col. 9, L. 8-Col. 10, L. 10].

7. Claim 10, Venkatsubra and Bahl and Hovell disclose the invention substantially
    as claimed. Bahl teaches wherein the communication session is effected via a
    Web site [Col. 3, L. 10-20].

8. Claim 11, Venkatsubra and Bahl and Hovell disclose the invention substantially
    as claimed. Bahl teaches further comprising maintaining a session record, the
    session record including an identity associated with initiation of session (i.e. a
    session record is implied from a session based hashing scheme) [Col. 9, L. 8-
    53].

9. Claim 19, Venkatsubra and Bahl and Hovell disclose the invention substantially
   as claimed. Hovell teaches wherein the intermediary protocol (i.e. IPv4) is
   different from the local protocols (i.e. IPv6) [fig. 1].

10. Claim 20, Venkatsubra and Bahl and Hovell disclose the invention substantially
    as claimed. Venkatsubra teaches wherein the intermediary protocol is a same
    protocol as the local protocols [fig. 1A, 4; and paragraph 4,8,32-35].

11. Claims 17-18 are corresponding machine-readable medium claims of method
    claims 1,19. Therefore, they are rejected under the same rationale.

12. Claims 12,14,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over
    Venkatsubra (US 2002/0078135 A1), and further in view of Hovell et al. (Hovell)
    (US 7,116,681 B1).

13. Claim 12, Venkatsubra teaches a system for transferring data via a
    communication session between a client application and a server application, the
    client application running on a first network behind a first firewall and the server
    application running on a second network behind a second firewall, the system
    comprising:

        a proxy to enable communication between the client and the server, the
    proxy containing a message queue dedicated to the communication session, the

message queue for storing data transmitted during the communication session
[fig. 1A, 4, 5 step 520; and paragraph 32-35,51-61],

wherein the proxy is configured to receive, from the client application, data
in the message queue destined for the server application, and to receive, from
the sever application, data in the message queue destined for the client
application [fig. 1A, 4; and paragraph 4,32-35,51-61]; and

wherein the proxy is configured to receive, from the client application, a
command to obtain data in the message queue destined for the client application,
and to receive, from the server application, a command to obtain data in the
message queue destined for the server application [fig. 1A, 4; and paragraph
4,32-35,51-61], the command received from the client application being a
hypertext transfer protocol (HTTP) command to retrieve data from the at least
one device, and the command received from the server application being an
HTTP command to retrieve data from the at least one device [fig. 1A, 4; and
paragraph 4,32-35].

Venkatsubra fails to teach a proxy having a socket to the client
application, the proxy to convert data between a local protocol run on the first
network to a non-local protocol; an agent having a socket to the server
application, the agent to convert data between a local protocol run on the second
network and the non-local protocol; and a server to enable communication
between the proxy and the agent. However, Hovell, in the same field of endeavor
having closely related objectivity, teaches wherein a proxy (i.e. border router

16A) having a socket (i.e. an ingress interface in Col. 5, L. 62-65) to the client

application (i.e. host 28), the proxy to convert data between a local protocol (i.e.

IPv6) run on the first network (i.e. IPv6 domain 12 in a first network) to a non-

local protocol (i.e. IPv4 in a second network) (i.e. the router 16A converts the

packets between the IPv6 to IPv4) [fig. 1&2; and Col. 3, L. 24-52; and Col. 5, L.

44-Col. 6, L. 42]; an agent (i.e. border router 16B) having a socket (i.e. an

ingress interface in Col. 5, L. 65-Col. 6, L. 2) to the server application (i.e. host

30), the agent to convert data between a local protocol (i.e. IPv6) run on the

second network (i.e. IPv6 domain 14 in a third network) and the non-local

protocol (i.e. IPv4 in a second network) (i.e. the router 16B converts the packets

between the IPv6 to IPv4) [fig. 1&2; and Col. 5, L. 44-Col. 6, L. 42; and L. 55-Col.

7, L. 3]; and a server (i.e. DNS 20) to enable communication between the proxy

(i.e. router 16A) and the agent (i.e. router 16B) [figure 1].

Thus, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have incorporated Hovell's teachings of wherein

the client application and the server application run local protocols, and the data

is passed between the client application and the server application via an

intermediary protocol, in the teachings of Venkatsubra in method and apparatus

for improving the operation of an application layer proxy, for the purpose of

supporting an advantage for the source/destination host need only send a

standard address request message in its own protocol.

14. Claim 14, Venkatsubra and Hovell disclose the invention substantially as
claimed. Venkatsubra teaches when data is present for the client application, the
proxy (i.e. the proxy in fig 1A) obtains the data from the message queue and
passes the data to the client application [fig. 1A, 4; and paragraph 32-35,51-61].
Besides this, Hovell teaches the proxy (i.e. border router 16A) having a socket
(i.e. an ingress interface in Col. 5, L. 62-65) to the client application (i.e. host 28)
for receiving and sending the data via the server DNS 20 [fig. 1&2; and Col. 3, L.
24-52; and Col. 5, L. 44-Col. 6, L. 42].

15. Claim 16, Venkatsubra and Hovell disclose the invention substantially as
claimed. Venkatsubra teaches when data is present for the server application,
the server (i.e. the proxy in fig. 1A is considered as the server) obtains the data
from the message queue and passes the data to the server application [fig. 1A,
4; and paragraph 32-35,51-61]. Besides this, Hovell teaches an agent (i.e. border
router 16B) having a socket (i.e. an ingress interface in Col. 5, L. 65-Col. 6, L. 2)
to the server application (i.e. host 30) [fig. 1&2; and Col. 5, L. 44-Col. 6, L. 42;
and L. 55-Col. 7, L. 3]; and a server (i.e. DNS 20) to enable communication
between the proxy (i.e. router 16A) and the agent (i.e. router 16B) [figure 1].

16. Claims 4,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

    Venkatsubra and Bahl and Hovell as applied to claim 1 above, and further in view

    of Blackett et al. (Blackett) (US 6,792,337 B2).

17. Claim 4, Venkatsubra and Bahl and Hovell disclose the invention substantially as

    claimed. Venkatsubra teaches the local protocols comprise at least one of

    TCP/IP [paragraph 4,8,32-35].

        Venkatsubra and Bahl and Hovell fail to teach a serial protocol, the serial

    protocol comprising one of RS232 and RS485. However, Blackett, in the same

    field of endeavor having closely related objectivity, teaches a serial protocol, the

    serial protocol comprising one of RS232 and RS485 [Col. 8, L. 7-22].

        Thus, it would have been obvious to one of ordinary skill in the art at the

    time the invention was made to have incorporated Blackett's teachings of a serial

    protocol, the serial protocol comprising one of RS232 and RS485, with Hovell's

    teachings of packet network interfacing, with Bahl's teachings of assigning an

    identifier to the communication session, in the teachings of Venkatsubra in

    method and apparatus for improving the operation of an application layer proxy,

    for the purpose of accomplishing low costs and high performance in the

    communication sessions.

18. Claim 9, Venkatsubra and Bahl and Hovell disclose the invention substantially as

    claimed. Venkatsubra teaches wherein the communication session comprises a

    common session [paragraph 32-35,51-61].

Venkatsubra and Bahl and Hovell fail to teach the communication session comprises a telnet session. However, Blackett, in the same field of endeavor having closely related objectivity, teaches the communication session comprises a telnet session [Col. 6, L. 50-60].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Blackett's teachings of the communication session comprises a telnet session, with Hovell's teachings of packet network interfacing, with Bahl's teachings of assigning an identifier to the communication session, in the teachings of Venkatsubra in method and apparatus for improving the operation of an application layer proxy, for the purpose of accomplishing low costs and high performance in the communication sessions.

19. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatsubra and Bahl and Hovell as applied to claim 1 above, and further in view of Niblett et al. (Niblett) (US 6,336,135 B1).

20. Claim 8, Venkatsubra and Bahl and Hovell are relied upon for the disclosure set forth in the previous rejection. Bahl teaches the identifier (i.e. session identifier) is validated for the communication session [Col. 9, L. 8-Col. 10, L. 65].

Venkatsubra and Bahl and Hovell fail to teach the identifier is invalidated when the communication session terminates. However, Niblett, in the same field

of endeavor having closely related objectivity, teaches the identifier is invalidated when the communication session terminates [Col. 15, L. 25-36].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Niblett's teachings of the identifier is invalidated when the communication session terminates, with Hovell's teachings of packet network interfacing, with Bahl's teachings of assigning an identifier to the communication session, in the teachings of Venkatsubra in method and apparatus for improving the operation of an application layer proxy, for the purpose of accomplishing low costs and high performance in the communication sessions.

Response to Arguments

Applicant's arguments filed 1/30/09 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 1-4,6-12,14,16-20 have been considered but are moot in view of the new ground(s) of rejection.

21. (A) Applications reside on a single host computer and not behind firewalls.

As to point (A), in response to applicant' argument, the recitation "a client application is behind a first firewall and a sever application behind a second firewall" or "application reside on a single host computer and not behind firewalls"

has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MINH-CHAU NGUYEN whose telephone number is

(571) 272-4242. The examiner can normally be reached on 7AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrice Winder/
Primary Examiner, Art Unit 2445

/M. N./

Examiner: Minh-Chau Nguyen, Art Unit 2445